

WHAT IS CLAIMED IS:

1. A method of providing settlement of traffic exchange associated with a plurality of networks of a plurality of network service providers, the method comprising:

determining a settlement agreement between a first one of the network service providers  
5 and a second one of the network service providers, the settlement agreement specifying rate information associated with traffic exchange between the corresponding networks of the first network service provider and the second network service provider;

monitoring the traffic exchange between respective networks of the first network service provider and the second network service provider; and

10 computing settlement information based upon the monitoring step, the settlement information includes usage cost differential information that is based upon the rate information.

2. The method according to claim 1, wherein the determining step comprises:

collecting rate information from each of the plurality of network service providers; and

15 receiving interconnectivity selection information from the first network service provider for establishment of a connection between the network of the first network service provider and the network of the second network service provider, wherein the interconnectivity selection information is based upon a predetermined parameter that comprises at least one of the collected rate information, performance metrics of the connection, and business relationship between the  
20 first network service provider and the second network service provider.

3. The method according to claim 2, wherein the collecting step and receiving step are performed by a web server.

4. The method according to claim 2, further comprising:  
displaying the rate information anonymously with respect to identity of the plurality of  
network service providers.

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5. The method according to claim 4, wherein the rate information in the displaying step  
represents a temporary offer, the temporary offer corresponding to excess capacity of the  
respective networks.

6. The method according to claim 1, further comprising:  
establishing a connection that interconnects the first network and the second network  
according to the settlement agreement.

7. The method according to claim 6, wherein the establishing step is performed by an  
Asynchronous Transfer Mode (ATM) switch.

8. The method according to claim 7, further comprising:  
providing routing information associated with the connection via a router that  
communicates with the ATM switch.

9. The method according to claim 1, further comprising:  
storing the rate information of the settlement agreement in a settlement database.

10. The method according to claim 1, wherein the rate information in the determining step includes at least one of a global rate that is offered by the first network service provider to all other network service providers and a specific rate that is offered by the first network service provider exclusively to the second network service provider.

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11. The method according to claim 1, wherein the settlement agreement in the determining step specifies quality of service (QoS) parameters, the method further comprising:  
establishing a connection between the network of the first network service provider and the network of the second network service provider based upon the specified QoS parameters.

12. A communication system for supporting settlement of network usage associated with a plurality of network service providers, comprising:

a plurality of networks corresponding to the plurality of network service providers;

a processor configured to determine a settlement agreement between a first one of the network service providers and a second one of the network service providers, the settlement agreement specifying rate information associated with traffic exchange between the corresponding networks of the first network service provider and the second network service provider;

a traffic monitor configured to measure a first source traffic originating from a first one of the plurality of networks to a second one of the plurality of networks and a second source traffic originating from the second network to the first network; and

a settlement database communicating with the processor, the database storing the settlement agreement and traffic statistics corresponding to the measured first source traffic and the second source traffic,

wherein the processor is configured to compute settlement information based upon the stored traffic statistics, the settlement information including usage cost differential information that is based upon the rate information.

13. The system according to claim 12, wherein the processor collects rate information from each of the plurality of network service providers and receives interconnectivity selection information from the first network service provider for establishment of a connection between the network of the first network service provider and the network of the second network service provider, the interconnectivity selection information being based upon a predetermined parameter that comprises at least one of the collected rate information, performance metrics of the connection, and business relationship between the first network service provider and the second network service provider.

14. The system according to claim 12, wherein the settlement agreement specifies quality of service (QoS) parameters, the connection between the respective networks of the first network service provider and the second network service provider being based upon the specified QoS parameters.

15. The system according to claim 12, wherein the processor resides in a web server.

16. The system according to claim 15, wherein the web server instructs a client station to display the rate information anonymously with respect to identity of the plurality of network service providers.

5 17. The system according to claim 12, wherein the rate information represents a temporary offer, the temporary offer corresponding to excess capacity of the respective networks.

18. The system according to claim 12, further comprising:  
a connection that interconnects the first network and the second network according to the settlement agreement.

19. The system according to claim 18, further comprising:  
an Asynchronous Transfer Mode (ATM) switch configured to establish the connection.

20 15 20. The system according to claim 18, further comprising:  
a router communicating with the processor, the router being configured to provide routing information associated with the connection.

21. The system according to claim 12, wherein the rate information includes at least one  
20 of a global rate that is offered by the first network service provider to all other network service providers and a specific rate that is offered exclusively by the first network service provider to the second network service provider.

22. A computer readable medium containing program instructions for execution on a computer system, which when executed by a computer, cause the computer system to perform method steps for providing settlement of traffic exchange associated with a plurality of networks of a plurality of network service providers, the method comprising the steps of:

5       determining a settlement agreement between a first one of the network service providers and a second one of the network service providers, the settlement agreement specifying rate information associated with traffic exchange between the corresponding networks of the first network service provider and the second network service provider;

10       receiving traffic statistics of the respective networks of the first network service provider and the second network service provider; and

15       computing settlement information based upon the receiving step, the settlement information includes usage cost differential information that is based upon the rate information.

20       23. The computer-readable medium according to claim 22, wherein the determining step comprises:

25       collecting rate information from each of the plurality of network service providers; and

30       receiving interconnectivity selection information from the first network service provider for establishment of a connection between the network of the first network service provider and the network of the second network service provider, wherein the interconnectivity selection information is based upon a predetermined parameter that comprises at least one of the collected rate information, performance metrics of the connection, and business relationship between the first network service provider and the second network service provider.

24. The computer-readable medium according to claim 22, wherein the method further comprises:

displaying the rate information anonymously with respect to identity of the plurality of network service providers.

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25. The computer-readable medium according to claim 24, wherein the rate information in the displaying step represents a temporary offer, the temporary offer corresponding to excess capacity of the respective networks.

10 26. The computer-readable medium according to claim 22, wherein the method further comprises:

initiating establishment of a connection that interconnects the first network and the second network according to the settlement agreement.

15 27. The computer-readable medium according to claim 22, wherein the method further comprises:

sending the rate information of the settlement agreement to a settlement database.

20 28. The computer-readable medium according to claim 22, wherein the rate information in the determining step includes at least one of a global rate that is offered by the first network service provider to all other network service providers and a specific rate that is offered by the first network service provider exclusively to the second network service provider.

29. The computer-readable medium according to claim 22, wherein the settlement agreement in the determining step specifies quality of service (QoS) parameters, the method further comprising:

initiating establishment of a connection between the network of the first network service provider and the network of the second network service provider based upon the specified QoS parameters.

30. A memory for storing settlement information associated with a plurality of networks of a plurality of network service providers, comprising a data structure including:

an account field for storing a unique account number of one of the plurality of network service providers;

a rate field for storing at least one of a global rate information and a specific rate information as specified by the one network service provider; and

an interconnection list record comprising a network service provider field for storing an identification information of another network service provider, a traffic statistics field for storing traffic statistics of a connection associated with the other network service provider, a discount rate field for storing pricing information, and a usage cost differential field for storing a difference between network usage between a network of the one network service provider and another network of the second network service provider.